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SOCIOSEXUALITY, RELATIONSHIP QUALITY AND QUALITY OF LIFE

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Sociosexual Attitudes and Quality of Life in (Non)Monogamous Relationships: The Role of Attraction and Constraining Forces Among Users of the Second Love Website

ABSTRACT

Research has typically shown that unrestricted sociosexuality is negatively associated with relationship quality, and that relationship quality is positively associated with quality of life (QoL). However, these findings may be restricted to individuals in monogamous relationships, especially those with prior extradyadic interactions (i.e., non-consensual non-monogamous; NCM). Indeed, individuals in consensual non-monogamous (CNM) relationships have more unrestricted sociosexuality and are also more satisfied with and committed to their relationships. Still, little research has examined whether both relationship agreements are associated differently with attraction forces (wanting to be) and constraining forces (having to be) in the relationship, and how they are related to QoL. We conducted a cross-sectional study with 373 heterosexuals (73.2% men, $M_{\text{age}} = 41.15$, $SD = 10.18$) registered on Second Love, a dating website for romantically involved individuals. Results showed differences in the hypothesized model, according to relationship agreement. For individuals in CNM relationships, unrestricted sociosexuality was associated with stronger attraction forces, which were then associated with greater QoL. The opposite pattern was found for those in NCM relationships. Furthermore, and regardless of relationship agreement, unrestricted sociosexuality was associated with weaker constraining forces, which were associated with greater QoL. These results make a novel contribution to the literature on relationship agreements and how they relate to QoL.

KEY WORDS: Relationship quality; Sociosexuality; Prior extradyadic interactions; Consensual non-monogamy; Quality of life; Attraction forces; Constraining forces

INTRODUCTION

Quality of life (QoL) refers to the overall subjective evaluation of well-being across different domains of individual and social functioning (Burckhardt & Anderson, 2003; Revicki et al., 2000). Because romantic relationships are an important part of people's lives, they have long been considered a significant correlate of QoL and well-being (Diener & McGavran, 2008; Khaleque, 2004; Myers, 1999). Indeed, romantic relationships, irrespective of their legal status (Dush & Amato, 2005), are important sources of subjective well-being, happiness, and life satisfaction (e.g., Be, Whisman, & Uebelacker, 2013; Demir, 2008; Diener & McGavran, 2008; Dyrda, Røysamb, Nes, & Vittersø, 2011; Gustavson, Røysamb, Borren, Torvik, & Karevold, 2016).

Sexual behavior has also been associated with life satisfaction (Schmiedeberg, Huyer-May, Castiglioni, & Johnson, 2017), and well-being (Anderson, 2013; Debro, Meuwly, Muise, Impett, & Schoebi, 2017), but it is often ignored by theoretical models of well-being (for a recent discussion, see Kashdan, Goodman, Stikma, Milius, & McKnight, 2017). Importantly, attitudes individuals hold toward their own sexuality can predict their behavior when in a romantic relationship. Drawing on the widely-studied construct of sociosexuality, the current study focused on sociosexual attitudes, referring to *a priori* evaluative dispositions toward casual sex. Individuals with more positive attitudes toward casual sex have less restricted sociosexuality, whereas those with more negative attitudes toward casual sex have more restricted sociosexuality (Simpson & Gangestad, 1991). These attitudes are not necessarily determined by sexual behaviors or desires (Penke & Asendorpf, 2008). Regardless of gender, sociosexually unrestricted individuals are more likely to engage in extradyadic online or face-to-face interactions (e.g., Martins et al., 2016), and extradyadic sex (e.g., Barta & Kiene, 2005; Rodrigues, Lopes, & Smith, 2017), and to indicate less relationship satisfaction (Rodrigues, Lopes, & Pereira, 2016; Webster et al., 2015) and

relationship commitment (Foster, Shrira, & Campbell, 2006; Rodrigues, Lopes, & Pereira, 2017). Moreover, those with past experience of extradyadic sex are also more likely to repeat such behavior in future relationships (Knopp et al., 2017). These findings clearly suggest that unrestricted sociosexual attitudes are negatively related to relationship quality. However, recent findings showed this association to depend on the relationship agreement established by the partners. Indeed, unrestricted sociosexuality and relationship quality are negatively associated among individuals in self-reported non-consensual non-monogamous relationships (NCNM: i.e., individuals in supposedly monogamous relationships who have extradyadic interactions), but positively associated among individuals in self-reported consensual non-monogamous relationships (CNM: Rodrigues et al., 2016; Rodrigues, Lopes, & Smith, 2017).

Suggesting an association between sociosexuality and QoL, Gangestad and Simpson (1990) found that unrestricted individuals scored lower on social closeness and well-being. Extending these findings to romantically involved individuals while considering their sexual behavior, in this cross-sectional study we sought to understand if relationship quality is the underlying mechanism whereby sociosexual attitudes are associated with QoL. To broaden our understanding, we considered both attraction and constraining forces as two distinct components of relationship quality (e.g., Stanley, Rhoades, & Whitton, 2010). Furthermore, to the best of our knowledge, no research to date has examined whether relationship agreements are distinctively associated with different aspects of relationship quality. Therefore, we examined if these mediations were moderated by the agreements about monogamy or non-monogamy.

Attraction and Constraining Forces in Relationships

Relationship quality and stability can be broadly defined as a composite of attraction forces and constraining forces (for discussions, see Adams & Jones, 1997; Fincham, Stanley, & Beach, 2007; Kurdek, 2000; Stanley et al., 2010). Attraction forces refer to factors that

lead individuals to “want to” remain in their relationship, including feelings of interdependence, dedication, having a couple identity, and long-term willingness to maintain the relationship (e.g., commitment, satisfaction). For instance, motivations to increase relationship intimacy and closeness, as well as greater emotional interdependence, are predictive of life satisfaction and well-being (Girme, Overall, Faingataa, & Sibley, 2016; Sels, Ceulemans, Bulteel, & Kuppens, 2016). Constraining forces refer to factors that lead individuals to feel they “have to” maintain their relationship, including perceiving greater internal or external barriers that prevent relationship ending (e.g., investments, sense of obligation to stay with the partner). For instance, constraining forces have been found to be associated with the perception of greater difficulty in terminating a relationship, while controlling for attraction forces (Rhoades, Stanley, & Markman, 2012).

Research has shown that both types of forces are associated with relationship adjustment, and reliably predict relationship stability (Rhoades, Stanley, & Markman, 2010). Attraction forces are associated with the activation of different pro-relationship mechanisms (e.g., derogation of alternative partners; Rodrigues & Lopes, 2017). Constraining forces usually benefit relationship quality when coupled with attraction forces. For instance, greater investments are likely to increase relationship commitment (Rusbult, Martz, & Agew, 1998). However, the experience of constraining forces (e.g., pressure to stay together) in the absence of attraction forces (e.g., commitment) can lead individuals to feel entrapped in the relationship, and to experience greater psychological distress (Knopp, Rhoades, Stanley, & Markman, 2015). For instance, making major relationship decisions based on constraining forces (e.g., deciding to get married based on moral conventions), instead of attraction forces (e.g., deciding to get married based on love), is associated with lower life satisfaction (Johnson, Anderson, & Aducci, 2011). Hence, although both forces predict relationship

maintenance, constraining forces are not necessarily associated with relationship quality and, in some cases, may even decrease it.

Sexuality, Relationship Quality and Quality of Life

Individual differences in sexuality can play an important role in the experience of relationship quality. For instance, attitudes toward extradyadic sex are a reliable predictor of extradyadic behaviors (Drake & McCabe, 2000; Jackman, 2015; Sharpe, Walters, & Goren, 2013). Recently, Knopp et al. (2017) showed that individuals who engaged in extradyadic sex in their first relationship, compared to those who did not, were three times more likely to repeat such behavior in their current relationship. These findings were independent of gender or relationship status. Because extradyadic sex refers to any type of sexual behavior with people other than the current romantic partner, in monogamous relationships such behaviors are commonly perceived by the partner as a transgression of commitment and trust (Fletcher, Simpson, Thomas, & Giles, 1999). Hence, in a monogamous relationship extradyadic sex can represent a violation of relationship attraction forces.

Research has shown that individuals with unrestricted (vs. restricted) sociosexuality report less relationship quality (Foster et al., 2006; Rodrigues et al., 2016; Rodrigues, Lopes, & Pereira, 2017; Webster et al., 2015). However, research has also shown that these individuals can be motivated to develop steady relationships (Simpson, Wilson, & Winterheld, 2004), and to be sexually invested in their romantic relationships (Tempelhof & Allen, 2008). This apparent inconsistency has been explained based on the motives unrestricted individuals have in their relationships (for a discussion, see Rodrigues & Lopes, 2017). To the extent that sociosexually unrestricted individuals strive to maintain a stable relationship and are sexually invested in it, they should also be motivated to avoid engaging in such behaviors, thus preventing the associated negative consequences for the relationship, and promoting relationship quality. Partially supporting this, research has recently shown that

sociosexually unrestricted individuals are less likely to engage in extradyadic sex when they are highly committed to their relationship (Rodrigues, Lopes, & Smith, 2017).

Unrestricted individuals who decide to engage in extradyadic sex (e.g., less motivation to avoid such behaviors, greater sense of opportunity) may experience a decrease in relationship attraction forces. Indeed, Rodrigues et al. (2016) focused on romantically involved individuals who were also active users of a dating website in Portugal – Second Love – and found that sociosexually unrestricted users in a self-reported monogamous relationship, but with prior extradyadic sex (i.e., NCNM), reported being less satisfied with their relationship. Given that relationship quality is positively associated with well-being and QoL (Proulx, Helms, & Buehler, 2007) these individuals may also have lower QoL, because they have an unfulfilling romantic relationship and are not adhering to the monogamous norm that typically characterizes romantic relationships. This is an important aspect to consider when examining sexuality, because Rodrigues et al. (2016) found that sociosexually unrestricted users in a CNM relationship actually reported greater satisfaction with their relationships. Similar findings were also obtained by Fleckenstein and Cox (2015) in a sample of older American adults, such that individuals in CNM relationships reported greater happiness and better overall health than those in monogamous relationships. These cross-cultural findings suggest that the type of relationship agreement established between partners can be a key factor to understanding how sociosexuality and relationship quality interact, and how they affect QoL.

Relationship Agreements and Relationship Quality

There are different categories of non-monogamy agreements (Conley, Matsick, Moors, & Ziegler, 2017). In this study, we defined CNM relationships as those in which individuals are each other's primary affective partners and have a relationship agreement that allows them to have extradyadic sex (Cohen, 2016; Hauptert, Gesselman, Moors, Fisher, & Garcia,

2017). In contrast, individuals in monogamous relationships have an explicit agreement about, or an implicit expectation of sexual exclusivity (Matsick, Conley, Ziegler, Moors, & Rubin, 2014; Rubel & Bogaert, 2015). Yet, not all individuals in self-reported monogamous relationships refrain from engaging in extradyadic intimate interactions (e.g., Knopp et al., 2017).

Research on relationship agreement has been most often conducted with same-sex relationships (e.g., Hosking, 2014; Parsons, Starks, Gamarel, & Grov, 2012; Ramirez & Brown, 2010). More recently, Séguin et al. (2017) used a sexually diverse sample, with a large proportion of self-defined heterosexual individuals (73.6%), and found no significant differences in relationship quality according to different types of relationship agreement. This was similar to the findings reported for same-sex samples (e.g., Whitton, Weitbrecht, & Kuryluk, 2015). Among heterosexual individuals, this lack of differences between monogamous and CNM relationships has been reported in different studies (Mogilski, Memering, Welling, & Shackelford, 2017; Rodrigues, Lopes, & Smith, 2017; for a review, see Rubel & Bogaert, 2015). However, some studies have found that non-monogamy can be associated with greater personal well-being and relationship quality than monogamy (Fleckenstein & Cox, 2015; Rodrigues et al., 2016). According to Cohen (2016), consensual non-monogamy allows individuals to express their sexuality and to have new experiences with other people without harming their happiness and relationship fulfillment with their primary partner. Such agreement is based on a principle of honesty, openness and mutual understanding, such that partners establish explicit barriers regarding which behaviors are acceptable (e.g., sexual intercourse), and which are not (e.g., lying to the primary partner).

Specifically examining how sociosexuality interacts with relationship agreement, Rodrigues, Lopes and Smith (2017) found that individuals in monogamous relationships without prior extradyadic sex were the most sociosexually restricted, whereas those in CNM

relationships were the most sociosexually unrestricted. Despite these differences, the two groups did not differ significantly in relationship quality, further supporting the notion that sociosexually unrestricted individuals can maintain functional relationships (for similar results, see Mogilski et al., 2017). In contrast, individuals in monogamous relationships with prior extradyadic interactions (NCNM) were somewhat sociosexually unrestricted and, more importantly, were the least committed and satisfied group. Therefore, there is evidence that the typical negative association between unrestricted sociosexuality and relationship quality occurs for individuals in monogamous relationships, but not for those in CNM relationships.

Current Study: Theoretical Model and Hypotheses

This study used a sample of romantically involved individuals who were paying users of Second Love (www.secondlove.pt), a dating website that promotes intimate extradyadic interactions with other romantically involved individuals. This dating platform is available in 10 countries worldwide (e.g., Portugal, USA, The Netherlands). Users can register and create a profile for free, but must pay for a subscription to see photos of other users and contact them. A paying subscription suggests that individuals are motivated to initiate extradyadic interactions with other people. All individuals in this study had previously engaged in (at least) virtual extradyadic sex. We were granted access to this sample by having previously contacting the manager of Second Love in Portugal and Brazil. A link to our questionnaire was made available to each user that logged in to their account. This type of websites is important to the study of extradyadic behavior and its impact on relationship experiences, because they facilitate the access to alternative partners and provide individuals with the opportunity to have either virtual or physical interactions with them (for a discussion, see Rodrigues, Lopes, & Pereira, 2017).

Research is inconsistent regarding the association between sociosexuality and relationship quality. On the one hand, sociosexually unrestricted individuals can have lower

relationship quality (Rodrigues et al., 2016; Webster et al., 2015), increasing the likelihood that they will engage in extradyadic sex (Barta & Kiene, 2005; Rodrigues, Lopes, & Pereira, 2017). On the other hand, unrestricted individuals can be motivated to maintain the relationship (Simpson et al., 2004), which can decrease the likelihood of extradyadic sex (Rodrigues & Lopes, 2017). These inconsistencies seem to be related to the relationship agreement established between the partners. Indeed, sociosexually unrestricted individuals in CNM relationships do report relationships with quality, whereas those in NCNM report the least quality in their relationship (Rodrigues, Lopes, & Smith, 2017). Following these results, we advance the following hypotheses (see Figure 1 for a depiction of the theoretical model):

H1: Among individuals in CNM relationships, unrestricted sociosexual attitudes should be positively associated with both attraction and constraining forces.

H2: Among individuals in NCNM relationships, unrestricted sociosexual attitudes should be negatively associated with attraction forces, but at the same time positively associated with constraining forces, which would be indicative of why they maintain the primary relationship.

Moreover, because relationship quality is associated with well-being and QoL (Proulx et al., 2007), both attraction and constraining forces should also be associated with QoL.

However, given the predicted moderation by relationship agreement, we also expected that:

H3: Among individuals in CNM relationships, both attraction and constraining should be positively associated with QoL.

H4: Among individuals in NCNM relationships, both attraction and constraining should be negatively associated with QoL.

METHOD

Participants

Although Second Love is a heterosexually focused website, our original sample included 20 non-heterosexual individuals. We excluded these individuals because this small subsample would not allow us for comparisons based on sexual orientation. Likewise, including heterosexual and non-heterosexual individuals in the same sample without accounting for differences in sexual behavior according to sexual orientation could lead to misleading conclusions. Hence, the final sample comprised 373 romantically involved Portuguese heterosexuals (73.2% men) with ages ranging from 18 to 71 years old ($M = 41.15$, $SD = 10.18$, median = 41.00). Mean relationship length was 12 years ($M = 12.06$ years, $SD = 9.44$, median = 10.00). Participants who reported being in a monogamous relationship (70.5%) were categorized as NCNM because their online extradyadic interactions were not previously discussed and agreed upon with the partner. Those who reported to be in a CNM relationship (29.5%) indicated they had such agreement (see measures for details).

Demographic information is summarized in Table 1. In general, no differences were found between individuals in NCNM and CNM relationships, all $p > .132$. Validating our categorization of the groups, all participants with a CNM agreement and nearly two-thirds of the NCNM sample (66.5%) engaged in actual sexual behavior with people other than their primary partner. Participants categorized as NCNM had individual registrations in the website, whereas nearly two-thirds of the CNM sample (62.7%) was registered as a couple with their partner.

Measures

Sociosexual Attitudes. We used three items ($\alpha = .83$) from the attitudes subscale of the Revised Sociosexual Orientation Inventory (Penke & Asendorpf, 2008; Portuguese adaptation by Rodrigues & Lopes, 2017). These items assess the attitudes individuals have toward having casual sex (e.g., “I can imagine myself being comfortable and enjoying casual

sex with different partners”). Responses were given on 7-point scales (1 = *Strongly disagree*, 7 = *Strongly agree*). Higher scores indicate more unrestricted sociosexual attitudes.

Attraction Forces. We used 12 items ($\alpha = .92$) of the Investment Model Scale (Rusbult et al., 1998; Portuguese adaptation by Rodrigues & Lopes, 2013). Specifically, we used the subscales of satisfaction (five items; e.g., “I feel satisfied with our relationship”) and commitment (seven items; e.g., “I want our relationship to last for a very long time”). Responses were given on 7-point scales (1 = *Do not agree at all*, 7 = *Agree completely*). Higher composite mean scores indicate stronger attraction forces.

Constraining Forces. We used 10 items in total ($\alpha = .85$), five from the Partner Contract subscale of the Measurement of Components of Commitment (Johnson, Caughlin, & Huston, 1999; Portuguese adaptation by Rodrigues & Lopes, 2015), and five from the investments subscale from the Investment Model Scale (Rusbult et al., 1998). In the former case, items assessed the sense of obligation and responsibility individuals have to support, take care of and not abandon the partner (e.g., “You could never leave [partner’s name] because you would feel guilty about letting [him/her] down”). In the latter case, items assessed the internal and external investments individuals had in the relationship, and which would be lost if the relationship ended (e.g., “Many aspects of my life have become linked to my partner [recreational activities, etc.], and I would lose all of this if we were to break up”). Responses were given on 7-point scales (1 = *Do not agree at all*, 7 = *Agree completely*). Higher composite mean scores indicate greater constraining forces in the relationship.

Quality of Life. We used the 16-item Quality of Life Scale (Burckhardt & Anderson, 2003; $\alpha = .90$). This scale assesses the level of satisfaction with material comfort and physical well-being (two items, $r = .44$, $p < .001$; e.g., “Material comforts: home, food, modern conveniences and financial security”), close relationships with significant others (four items, $\alpha = .62$; e.g., “Close relationships with spouse or significant others”), participating in social

community and civic activities (two items, $r = .48$, $p < .001$; e.g., “Helping and encouraging others, participating in organizations, and volunteering”), personal development and fulfillment (four items, $\alpha = .78$; e.g., “Understanding yourself, knowing your assets and limitations, knowing what life is about”) and recreation (four items, $\alpha = .85$; e.g., “Socializing, meeting other people, doing things, parties, etc.”). Responses were given on 7-point scales (1 = *Very dissatisfied*, 7 = *Very satisfied*). Higher mean scores indicated greater QoL. Because this measure was not previously validated in European Portuguese, we conducted a confirmatory factor analysis. Results showed that the theoretical model with five first-order factors and one second-order factor had a good fit in our sample: $\chi^2(99) = 227.23$, $p = .001$, comparative fit index (CFI) = .92, Tucker-Lewis index (TLI) = .90, standardized root mean square residual (SMSR) = .05, and root mean square error of approximation (RMSEA) = .06 [90% CI: .05, .07].

Extradyadic sex and Relationship Agreement. As in previous research (Rodrigues & Lopes, 2017; Rodrigues et al., 2016; Rodrigues, Lopes, & Smith, 2017; Shaw, Rhoades, Allen, Stanley, & Markman, 2013) participants indicated whether they regularly interacted with other Second Love users (*Yes/No*) and whether they had any type of sexual interaction (e.g., virtual or physical) with other people (*Yes/No*). In this study, all participants responded *Yes* to both questions. Participants were additionally asked if these interactions had been previously discussed and agreed upon with the partner (*Yes/No*). Those who responded “*No*” were classified as having a NCNM agreement, whereas those who responded “*Yes*” were classified as having a CNM agreement. Lastly, they were asked if they had engaged in extradyadic sex during the current relationship (*Yes/No*) and if they were registered individually or as a couple with their partner (*Individual/Couple*).

Procedure

This study was conducted in accordance with the ethical guidelines issued by ISCTE-IUL, i.e., the study had no physical, financial, social, legal, or other risks, was noninvasive, and no false information was provided. An announcement was made available to Second Love users upon login, inviting them to take part in a study about heterosexual interpersonal relationships. By clicking on the hyperlink provided in that announcement, participants were redirected to the study itself. They were first presented with the general purpose of the study, and were informed that participation was voluntary, that responses were confidential and anonymous, and that they could withdraw at any point without their responses being considered for analysis. After providing informed consent (by clicking on the “*I agree*” option), participants were asked to provide standard demographic information (e.g., age, gender, sexual orientation), and to answer the remaining measures. At the end, participants were thanked and provided with the contact information of the research team.

RESULTS

Preliminary analysis

Although this was a non-forced choice survey, there were no missing cases in our main variables. Descriptive statistics and correlations between all measures according to relationship agreement – NCNM or CNM – are presented in Table 2. Regardless of relationship agreement, all dimensions of QoL were positively correlated, all $p < .001$. In both groups attraction forces were positively correlated with constraining forces, both $p < .001$, and with the dimension relationships with other people, both $p < .050$.

There were a number of differences between the two groups. For Second Love users with a NCNM agreement, unrestricted sociosexual attitudes were negatively correlated with attraction forces in the relationship, $p < .001$, global QoL, $p = .034$, and three of its dimensions, all $p < .029$. For these individuals, attraction forces were also significantly positively correlated with global QoL and all of its dimensions, all $p < .002$, except for the

“social, community and civic activities” dimension, $p = .163$. In contrast, for those with a CNM agreement, unrestricted sociosexual attitudes were significantly and positively correlated with attraction forces in the relationship, $p = .003$, and with both material and physical well-being, $p = .044$, and relationships with other people, $p = .008$.

We also examined differences sociosexual attitudes, attraction forces, constraining forces, and quality of life (global and for each dimension) according to demographic variables, in order to identify which should be included as co-variables in subsequent analyses. More specifically, we computed eight MANOVAs, one for each variable: gender, education, residence, religion, political orientation, relationship type, prior extradyadic sex, and registration. Multivariate results showed only differences regarding gender, Wilk's $\Lambda = .85$, $F(9, 362) = 6.92$, $p < .001$, $\eta_p^2 = .15$, education, Wilk's $\Lambda = .95$, $F(9, 362) = 2.14$, $p = .026$, $\eta_p^2 = .05$, relationship type, Wilk's $\Lambda = .93$, $F(9, 362) = 2.89$, $p = .003$, $\eta_p^2 = .07$, and prior extradyadic sex, Wilk's $\Lambda = .92$, $F(9, 362) = 3.37$, $p = .001$, $\eta_p^2 = .08$. No other multivariate results were significant, all $p > .312$.

A more detailed analysis revealed that men (vs. women) were more unrestricted in their sociosexual attitudes ($M = 5.66$, $SD = 1.25$ vs. $M = 4.44$, $SD = 2.04$), and perceived stronger constraining forces in their relationship ($M = 4.02$, $SD = 1.24$ vs. $M = 3.68$, $SD = 1.20$). Results also showed that more (vs. less) educated individuals were more unrestricted in their sociosexual attitudes ($M = 5.48$, $SD = 1.48$ vs. $M = 5.13$, $SD = 1.71$), and reported greater global QoL ($M = 5.08$, $SD = 0.71$ vs. $M = 4.88$, $SD = 0.76$). These differences were also observed in the dimensions “material and physical well-being” ($M = 5.23$, $SD = 0.97$ vs. $M = 5.00$, $SD = 0.97$), “social, community and civic activities” ($M = 4.86$, $SD = 0.91$ vs. $M = 4.67$, $SD = 0.87$), and “personal development and fulfillment” ($M = 5.30$, $SD = 0.86$ vs. $M = 5.01$, $SD = 0.84$). Regarding relationship status, results showed that individuals without (vs. with) a legal bond perceived weaker constraining forces ($M = 3.61$, $SD = 1.18$ vs. $M = 4.05$, $SD =$

1.23), and greater QoL in the dimensions “participating in social community and civic activities” ($M = 4.96$, $SD = 0.95$ vs $M = 4.71$, $SD = 0.87$) and “recreation” ($M = 5.08$, $SD = 1.10$ vs $M = 4.82$, $SD = 0.91$). Lastly, results showed that individuals with (vs. without) prior extradyadic sex in the current relationship had more unrestricted sociosexual attitudes ($M = 5.69$, $SD = 1.31$ vs. $M = 5.01$, $SD = 1.75$) and reported weaker attraction forces ($M = 4.08$, $SD = 1.22$ vs. $M = 4.49$, $SD = 1.34$). These variables were controlled for in subsequent analyses.

Moderated Mediation Model

Following our hypotheses, we used the PROCESS macro (Hayes, 2013) to test a moderated mediation model (Model 7; see Figure 1) with 10,000 bootstrap samples. Unrestricted sociosexuality was the predictor variable (X), attraction forces (M1) and constraining forces (M2) were the mediator variables. Relationship agreement (coded: 0 = NCNM, 1 = CNM) was the moderator variable (W). Global QoL was the outcome variable (Y). Gender, education, relationship type, and prior extradyadic sex were entered as co-variates. Products were mean centered prior to the analysis. Results are summarized in Table 3.

As expected, results showed that relationship agreement moderated the association between unrestricted sociosexuality and attraction forces, $p < .001$. Simple slopes analyses revealed that unrestricted sociosexual attitudes were associated with stronger attraction forces among participants with a CNM agreement, $p = .012$. For those with a NCNM agreement, however, unrestricted sociosexual attitudes were associated with weaker attraction forces, $p = .001$. Regardless of relationship agreement, attraction forces were associated with QoL, $p < .001$. Hence, sociosexually unrestricted individuals with a CNM agreement reported greater QoL due to stronger attraction forces in their relationship, $b = 0.03$, $SE = 0.01$, 95% CI [0.012, 0.065], whereas those with a NCNM agreement reported lower QoL due to weaker attraction forces, $b = -0.03$, $SE = 0.01$, 95% CI [-0.047, -0.010].

Results also showed that unrestricted sociosexuality was associated with weaker constraining forces, $p = .002$. Against our expectations, however, relationship agreement did not moderate this association, $p = .889$. Moreover, constraining forces were associated with QoL, $p = .003$. Hence, sociosexually unrestricted individuals reported greater QoL because of weaker constraining forces in their relationship, regardless of their relationship agreement.

Further supporting our findings, indexes of moderated mediation (Hayes, 2015) were significant for the attraction forces, $b = 0.06$, $SE = 0.02$, 95% CI [0.030, 0.101], but not for the constraining forces, $b = 0.01$, $SE = 0.01$, 95% CI [-0.021, 0.023]. Figure 2 depicts the final moderated mediation model.

This model was replicated for all dimensions of QoL (see Appendix), and the strongest index of moderated mediation by attraction forces was observed for the dimension “relationships with other people” ($b = 0.08$, $SE = 0.02$, 95% CI [0.043, 0.141]). The only exception was the dimension “social community and civic activities”, with which neither attraction forces, $p = .163$, nor constraining forces, $p = .156$, were associated.

DISCUSSION

We argued that the association between sociosexuality and different dimensions of QoL would occur through relationship quality forces, depending on the relationship agreement established between both partners. Results showed no differences between individuals in NCNM and those in CNM relationships regarding their sociosexual attitudes. This finding is not entirely surprising, given that all individuals were registered on Second Love, and indicated a willingness to have regular extradyadic interactions with other users, often of sexual nature. Equally interesting was the lack of differences according to relationship agreement in attraction and constraining forces, as well as in perceived QoL, thus suggesting that individuals in both types of relationships have similar relationship dynamics.

Supporting our hypotheses, we showed for the first time that attraction forces mediate the association between sociosexuality and QoL, depending on relationship agreement. More specifically, for Second Love users in CNM relationships unrestricted sociosexual attitudes were associated with stronger attraction forces to the primary relationship, which in turn were associated with greater QoL. In contrast, those in NCNM relationships who reported more unrestricted sociosexual attitudes reported weaker attraction forces, which were associated with lower QoL. The hypotheses regarding constraining forces were not entirely supported by our findings, given that no evidence of moderation by relationship agreement was found. Instead, an interesting pattern of results emerged, such that sociosexually unrestricted individuals reported being less constrained in their relationships and reported greater QoL, regardless of being in a NCNM or a CNM relationship.

For individuals in CNM relationships, results converge with recent findings that feeling free to explore sexuality with others is considered one of the most appealing aspects of having a CNM relationship (Cohen, 2016), and that sexual satisfaction with others is positively associated with happiness and perceived health (Fleckenstein & Cox, 2015), as well as relationship satisfaction (Rodrigues et al., 2016). Our results somewhat resonate with those reported by Vrangalova and Ong (2014), which showed that romantically uninvolved individuals with unrestricted sociosexuality also reported higher self-esteem and life satisfaction, as well as lower anxiety. Similar to the positive experience of romantically uninvolved individuals, when both partners have unrestricted sociosexuality and agree on which extradyadic behaviors are accepted in their relationship, they allow themselves and their partner to explore sexuality, which in turn promotes relational growth and greater QoL. Moreover, in contrast to findings from individuals in monogamous relationships (Girme et al., 2016; Sels et al., 2016), for these individuals constraining forces do not seem to work in tandem with attraction forces to increase relational interdependence and well-being.

Presumably, by having established clear boundaries regarding their extradyadic interactions, individuals who decide to move forward with this new relationship agreement are also motivated to stay together because of their dedication and dependence (i.e., attraction forces), and not because they feel constrained by external or internal barriers (e.g., psychological contract or obligation to stay with the partner) that prevents relationship ending. Hence, for these individuals, relationship quality together with sexual satisfaction (both with the primary and with extradyadic partners) may be the main driving forces behind relationship quality and well-being (Velten & Margraf, 2017), and ultimately in the decision to maintain the relationship (see also de Visser & McDonald, 2007).

Results for individuals in NCNM relationships converge with recent findings showing that individuals who have regular intimate interactions with others – be it virtually or physically – have more permissive views of infidelity (Rodrigues, Lopes, & Pereira, 2017), and are less committed and satisfied in their relationships (Martins et al., 2016). Results also converge with the finding that individuals with a past history of extradyadic sex are more likely to repeat that pattern of behavior in future relationships (Knopp et al., 2017). Interestingly, although attraction forces and relationship sexuality are interlinked (McNulty, Wenner, & Fisher, 2016), a longitudinal study by Shaw et al. (2013) showed that less attraction forces predicted future extradyadic sex, but sexual dissatisfaction did not. Hence, our results suggest that relationship dynamics related to dedication and motivation to willingly maintain the relationship (i.e., attraction forces), but not those solely related to sexuality (e.g., sexual satisfaction with the primary partner), are more indicative of well-being and QoL, at least among individuals who interact with others in a dating website on a regular basis. Still, these individuals reported being with their partner on average for 12 years. Because they also indicated weaker constraining forces, the maintenance of their relationship may presumably be dependent upon the existence of internal and/or external

investments (e.g., economically dependent children, costs associated with the divorce), void of any sense of dependence of the partner (see also Knopp et al., 2015).

Equally important, our results were replicated in different QoL domains (e.g., physical well-being, personal development, recreation), and were stronger for relationships with other people (e.g., relationship with significant other). The only exception was the social community and civic activities dimension. This is not entirely surprising, given that this dimension refers to activities related to help and encouraging others, and participating in organizations and public affairs (Burckhardt & Anderson, 2003). Even though the first aspect of this dimension is clearly unrelated to sexuality, the greater QoL individuals in CNM relationships experience could impel them to be more active in public discussions about non-normative relationships. However, because these individuals are often targets of negative appraisals, stigmatization, and discrimination (Grunt-Mejer & Campbell, 2016; Moors, Matsick, Ziegler, Rubin, & Conley, 2013; Rodrigues, Fasoli, Huic, & Lopes, 2017), they may decide to maintain a low profile regarding their relationships agreements, and pursue extradyadic sex with other people in the same, or similar, conditions (e.g., interact with other romantically involved individuals in dating websites).

Strengths, Limitations and Future Research

The cross-sectional nature of our data does not allow us to establish causality in our findings. Also, individuals in NCNM relationships did not indicate how long ago they started their extradyadic interactions with other people (in Second Love or not) or their history of past extradyadic sex, and individuals in CNM relationships did not indicate for how long they had this relationship agreement. Hence, future research should seek to include this information and design longitudinal studies to examine if decreased relationship quality and QoL is a product of interactions with other users, or if registration on these websites resulted from a poorer relationship with the primary partner. Relatedly, we are not able to conclude to

what extent sociosexual attitudes have a greater (or lesser) association with attraction and constraining forces, when accounting for sociosexual behavior or sociosexual desire. A longitudinal study would also help to clarify which components of sociosexuality have the greatest influence on the development of a non-monogamy agreement. Likewise, we are not able to conclude whether individuals in CNM relationships report stronger attraction forces and weaker constraining forces because of their relationship agreement, or whether they decided to explore their sexuality and establish a new relationship agreement because they were secure in their relationship. Future studies should also consider having a dyadic approach (i.e., assessing both partners), to examine how similarities and differences in individual variables are associated with a greater likelihood of establishing a CNM agreement (e.g., sociosexual orientations, sensation seeking, extroversion, jealousy).

Furthermore, study participants did not report their sexual satisfaction with the primary partner. This is important given that quality of sex with the primary partner is positively associated with individual well-being and relationship quality (Christopher & Sprecher, 2000; Schoenfeld, Loving, Pope, Huston, & Štulhofer, 2017). Hence, future research should seek to add measures of sexual satisfaction and frequency of sex with the primary partner, to examine if the association between attraction forces and QoL is dependent upon sexual satisfaction, over and above the satisfaction and commitment with broader aspects of the relationship. It would be important to also extend these findings by making comparisons with truly monogamous relationships (i.e., those without prior extradyadic interactions).

Our findings also suggest that Second Love users maintain their relationships due to internal or external investments. However, some authors suggest the need to also consider the dimension of morality associated with relationship maintenance (Adams & Jones, 1997; Johnson et al., 1999). This is especially relevant in our line of work given the association of extradyadic interactions and perceptions of infidelity. As such, future research should

consider including other types of constraining forces and examine their role in relationship quality and well-being according to different relationship agreements. For instance, it would be interesting to examine whether attitudes toward separation would be another mechanism by which individuals in NCNM would feel constrained in their relationships, thus decreasing their QoL.

Related to the relationship agreement, most relationships rely on an implicit monogamy norm, and individuals more likely to engage in extradyadic interactions may refrain from explicitly discussing the possibility of other relationship agreements with the partner. This contrasts sharply with individuals in CNM relationships, who have explicit agreements about rules and boundaries to their behaviors. Hence, future research should seek to conduct interviews to understand the reasons why individuals in NCNM relationships decide to maintain their relationship (e.g., children, economic reasons), and the impact of relational sexuality (e.g., sexual desire for the primary partner). Future studies should also seek to understand whether these individuals actually consider that they are violating monogamous norms and whether they consider their extradyadic behavior to be infidelity.

Results regarding CNM relationships, on the other hand, may be limited to relationships in which both partners invite another person to have sex (e.g., three-ways) and generalization to other forms of CNM relationships should be made with caution. Indeed, in our sample, all CNM individuals had agreed upon extradyadic sex and about two-thirds were registered as a couple. Therefore, caution should be taken when generalizing to other CNM relationships – e.g., relationships in which partners are allowed to exchange (e.g., swingers), or people in polyamorous relationships. For instance, in some cases both CNM partners may agree only to virtual sex with other people. If one partner decides to engage in actual extradyadic sex, the violation of the boundaries explicitly established may be perceived as infidelity, possibly leading to a similar process to that observed for monogamous individuals

with prior extradyadic sex. Likewise, agreements about emotional bonds with other people (e.g., polyamorous individuals) may also influence the quality of the primary relationship. For instance, research has shown that polyamorous individuals are more unrestricted in their sociosexuality and have more intimate relationships than monogamous individuals (Morrison, Beaulieu, Brockman, & Beaglaioich, 2013). However, it is unclear if individuals experience distinct attraction forces depending on the importance attributed to each relationship (e.g., primary vs. secondary), and how such forces contribute to QoL. More broadly, research has shown that individuals in monogamous relationships with prior extradyadic sex are less likely to adopt safe sex practices, than those in CNM relationships (Conley, Moors, Ziegler, & Karathanasis, 2012). Hence, future studies should include specific measures of actual condom use with primary and non-primary partners, and examine which individual variables can help counteract this tendency, and promote sexual health.

Despite these limitations, this study extends the current literature on four novel fronts. First, most research focuses on young adults (typically college students) and, in the context of relationship agreements, most evidence come from studies with same-sex relationships. In contrast, we examined a sample of heterosexual individuals involved in a long-term romantic relationship. Second, our analyses focused on a sample of Second Love registered users. This specific sample offers therefore a unique framework for exploring relationship processes among individuals motivated to engage in some form of infidelity. Third, although sexuality is often lacking in theoretical models of well-being (Kashdan et al., 2017), we examined how relationship agreements are associated with different dimensions of QoL. Fourth, we replicated cross-culturally recent findings showing that different relationship agreements are associated with happiness and health (Fleckenstein & Cox, 2015).

Sexuality research is becoming increasingly focused on how different perspectives regarding romantic relationships can be beneficial for personal well-being and relationship

quality. With this study, we showed that having a relationship agreement that best suits sexual needs may benefit the individual and the relationship across several domains, and for the first time showed its association with better QoL. These are promising results that open new and fascinating venues of research for the future of romantic relationships.

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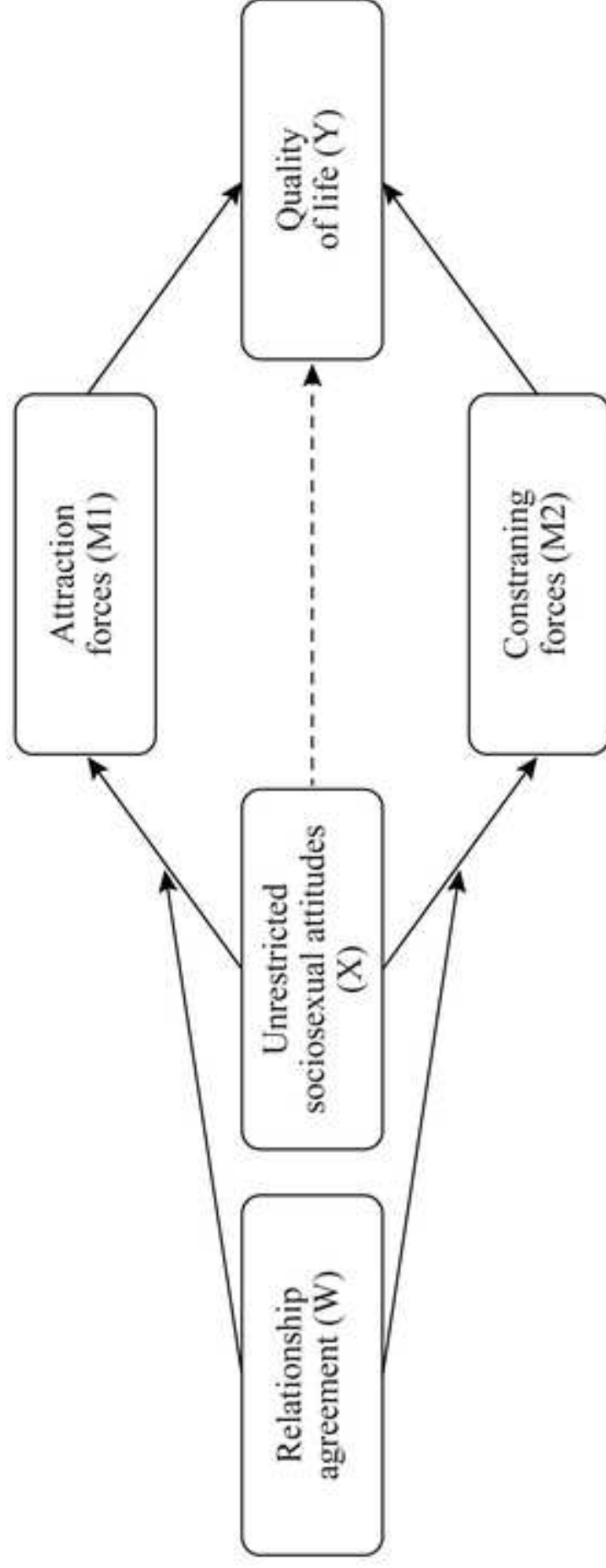
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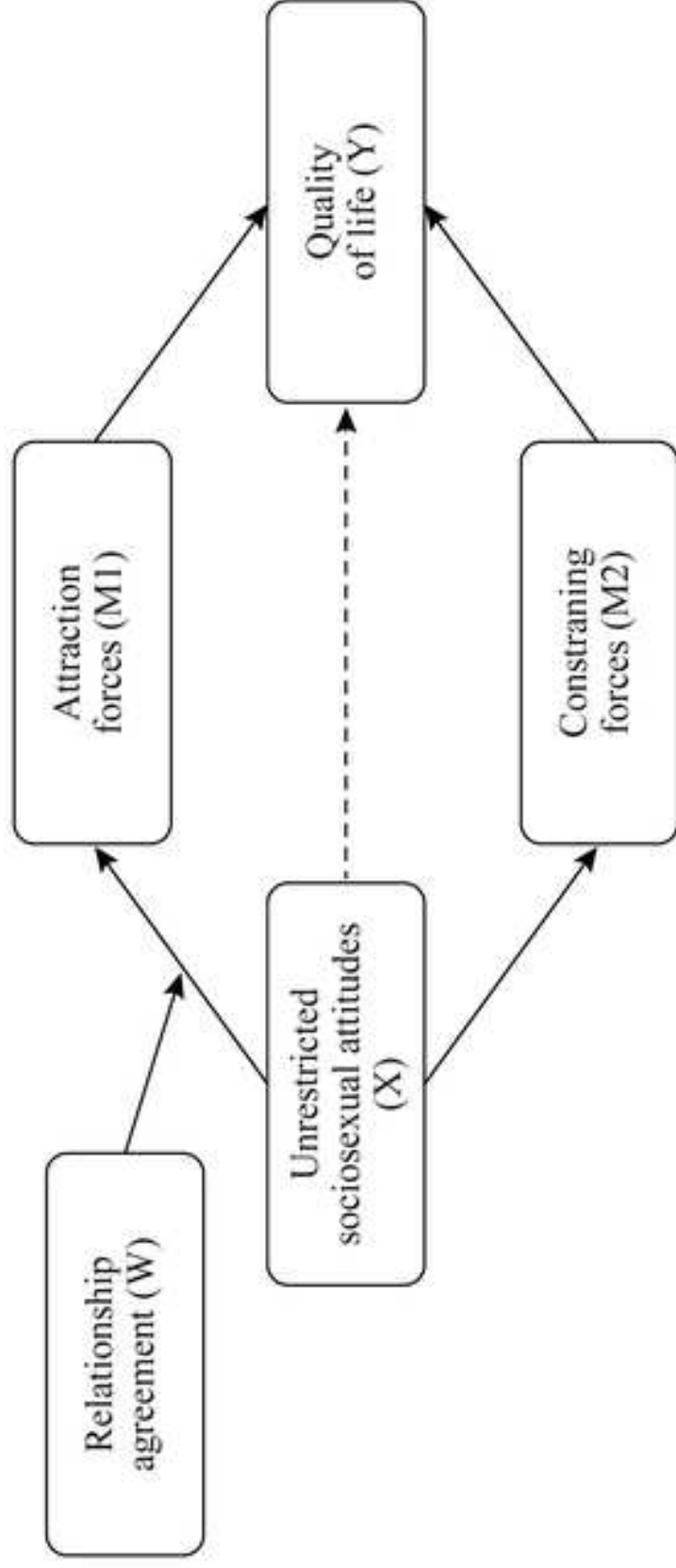
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-- Figure 1 about here --

Figure 1. Hypothesized Model.

-- Figure 2 about here --

Figure 2. Moderated Mediation Model for Global Quality of Life.

Table 1

Demographic Information and Difference Tests According to Relationship Agreement

	NCNM (<i>n</i> = 263)	CNM (<i>n</i> = 110)		
	<i>n</i> (%)	<i>n</i> (%)	$\chi^2(373)$	Cramer's <i>V</i>
Gender				
Women	28.9%	21.8%	1.64	.07
Men	71.1%	78.2%		
Education				
≤ 12 years	44.5%	41.8%	0.13	.03
> 12 years	55.5%	58.2%		
Residence				
Urban center	50.8%	47.7%	0.18	.03
Suburbs	49.2%	52.3%		
Religion				
None	38.8%	32.7%	2.67	.09
Catholic	49.0%	58.2%		
Other	12.2%	9.1%		
Political orientation				
Right wing	28.1%	27.4%	0.19	.02
Center	41.9%	44.3%		
Left wing	30.0%	28.3%		
Relationship type				
Without legal bound	25.9%	33.6%	1.95	.08
With legal bond	74.1%	66.4%		
Actual EDS				
No	33.5%	0%	-	-
Yes	66.5%	100%		
Registration as a couple				
No	100%	37.3%	-	-
Yes	0%	62.7%		
	<i>M (SD)</i>	<i>M (SD)</i>	<i>t</i> (371)	Cohen's <i>d</i>
Age	41.24 (10.21)	40.95 (10.18)	0.25	0.03
Relationship length (months)	148.94 (110.07)	134.25 (120.37)	1.14	0.12

Note: NCNM = non-consensual non-monogamous. CNM = consensual non-monogamous.

Table 2

Correlations Between the Variables

	NCNM		CNM		Correlations								
	<i>M (SD)</i>		<i>M (SD)</i>		1	2	3	4	5	6	7	8	9
1. Unrestricted sociosexual attitudes	5.26 (1.67)		5.51 (1.38)		-	.28*	-.14	.18	.19*	.25**	.11	.07	.12
2. Attraction forces	4.31 (1.38)		4.28 (1.26)		-.24***	-	.35***	.02	.06	.18*	.01	-.07	-.08
3. Constraining forces	3.91 (1.22)		3.99 (1.28)		-.08	.37***	-	-.11	-.10	-.06	-.13	-.02	-.17
4. QOL Global	4.98 (0.74)		5.03 (0.74)		-.13*	.30***	-.06	-	.74***	.83***	.74***	.87***	.87***
5. QOL: Material and physical well-being	5.10 (1.01)		5.20 (0.86)		.01	.20***	-.03	.73***	-	.61***	.46***	.54***	.58***
6. QOL: Relationships with other people	4.95 (0.89)		5.01 (0.90)		-.06	.32***	.03	.80***	.55***	-	.51***	.58***	.59***
7. QOL: Social, community and civic activities	4.77 (0.89)		4.78 (0.92)		-.15*	.09	-.05	.62***	.27***	.30***	-	.63***	.57***
8. QOL: Personal development and fulfillment	5.17 (0.86)		5.16 (0.88)		-.16*	.23***	-.11	.85***	.56***	.56***	.50***	-	.71***
9. QOL: Recreation	4.87 (0.99)		4.97 (0.93)		-.14*	.26***	-.08	.88***	.55***	.58***	.56***	.66***	-

Note: NCNM = non-consensual non-monogamous. CNM = consensual non-monogamous. QOL = Quality of Life. Variables 5 through 9 are the different dimensions of

QOL. Correlations for individuals with a NCNM agreement are below the diagonal. Correlations for individuals with a CNM agreement are above the diagonal.

* $p \leq .050$, ** $p \leq .010$, *** $p \leq .001$

Table 3

Results for the Moderated Mediation Model for Global Quality of Life

(Model 7)	Attraction forces (M1)		Constraining forces (M2)		Global quality of life (Y)	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Constant	4.14***	0.48	2.35***	0.45	4.59***	0.28
Unrestricted sociosexual attitudes (X)	-0.06	0.05	-0.14**	0.04	-0.02	0.03
Relationship agreement (W)	-0.44*	0.19	0.22	0.18	-	-
X x W	0.41***	0.10	-0.01	0.10	-	-
NCNM	-0.18***	0.05	-	-	-	-
CNM	0.23*	0.09	-	-	-	-
Gender (Cov)	0.31	0.16	0.49**	0.15	0.06	0.09
Education (Cov)	0.07	0.14	-0.16	0.13	0.18*	0.08
Relationship type (Cov)	0.16	0.15	0.46**	0.14	-0.08	0.08
Prior EDS (Cov)	-0.53**	0.18	0.14	0.17	-0.05	0.07
Attraction forces (M1)	-	-	-	-	0.15***	0.03
Constraining forces (M2)	-	-	-	-	-0.10**	0.03

Note. Relationship agreement: 0 = Non-consensual non-monogamous (NCNM), 1 = Consensual non-

monogamous (CNM). Cov = co-variate. Gender: 0 = Women, 1 = Men. Education: 0 = ≤ 12 years, 1 = > 12

years. Relationship type: 0 = Without legal bond, 1 = With legal bond. Prior extradyadic sex (EDS): 0 = No, 1 =

Yes.

* $p \leq .050$, ** $p \leq .010$, *** $p \leq .001$.

Appendix

Results for the Moderated Mediation Model for Each Dimensions of Quality of Life

(Model 7)	Attraction forces (M1)		Constraining forces (M2)		Material comfort and physical well-being (Y)	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Constant	4.14***	0.48	2.35***	0.45	4.55***	0.37
Unrestricted sociosexual attitudes (X)	-0.06	0.05	-0.14**	0.04	0.04	0.03
Relationship agreement (W)	-0.43*	0.19	0.22	0.18	-	-
X x W	0.40***	0.10	-0.01	0.10	-	-
NCNM	-0.18***	0.05	-	-	-	-
CNM	0.23*	0.09	-	-	-	-
Gender (Cov)	0.31	0.16	0.49***	0.15	0.04	0.12
Education (Cov)	0.07	0.14	-0.16	0.13	0.19	0.10
Relationship type (Cov)	0.16	0.15	0.46***	0.14	0.08	0.11
Prior EDS (Cov)	-0.53**	0.18	0.14	0.17	-0.13	0.11
Attraction forces (M1)	-	-	-	-	0.14***	0.04
Constraining forces (M2)	-	-	-	-	-0.08*	0.04
(Model 7)	Attraction forces (M1)		Constraining forces (M2)		Close relationships with significant others (Y)	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Constant	4.14***	0.48	2.35***	0.45	4.21***	0.33
Unrestricted sociosexual attitudes (X)	-0.06	0.05	-0.14**	0.04	0.01	0.03
Relationship agreement (W)	-0.43*	0.19	0.22	0.18	-	-
X x W	0.40***	0.10	-0.01	0.10	-	-
NCNM	-0.18***	0.05	-	-	-	-
CNM	0.23*	0.09	-	-	-	-
Gender (Cov)	0.31	0.16	0.49***	0.15	0.14	0.11
Education (Cov)	0.07	0.14	-0.16	0.13	0.09	0.09
Relationship type (Cov)	0.16	0.15	0.46***	0.14	-0.08	0.10
Prior EDS (Cov)	-0.53**	0.18	0.14	0.17	-0.06	0.09
Attraction forces (M1)	-	-	-	-	0.21***	0.04
Constraining forces (M2)	-	-	-	-	-0.07*	0.04
(Model 7)	Attraction forces (M1)		Constraining forces (M2)		Social community and civic activities (Y)	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Constant	4.14***	0.48	2.35***	0.45	4.99***	0.35
Unrestricted sociosexual attitudes (X)	-0.06	0.05	-0.14**	0.04	-0.04	0.03
Relationship agreement (W)	-0.43*	0.19	0.22	0.18	-	-
X x W	0.40***	0.10	-0.01	0.10	-	-
NCNM	-0.18***	0.05	-	-	-	-
CNM	0.23*	0.09	-	-	-	-
Gender (Cov)	0.31	0.16	0.49***	0.15	-0.05	0.11
Education (Cov)	0.07	0.14	-0.16	0.13	0.20*	0.09
Relationship type (Cov)	0.16	0.15	0.46***	0.14	-0.21*	0.10
Prior EDS (Cov)	-0.53**	0.18	0.14	0.17	-0.06	0.10
Attraction forces (M1)	-	-	-	-	0.05	0.04
Constraining forces (M2)	-	-	-	-	-0.06	0.04
(Model 7)	Attraction forces (M1)		Constraining forces (M2)		Personal development and fulfillment (Y)	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Constant	4.14***	0.48	2.35***	0.45	4.55***	0.33
Unrestricted sociosexual attitudes (X)	-0.06	0.05	-0.14**	0.04	-0.06*	0.03
Relationship agreement (W)	-0.43*	0.19	0.22	0.18	-	-
X x W	0.40***	0.10	-0.01	0.10	-	-
NCNM	-0.18***	0.05	-	-	-	-
CNM	0.23	0.09	-	-	-	-
Gender (Cov)	0.31	0.16	0.49***	0.15	0.04	0.11

Education (Cov)	0.07	0.14	-0.16	0.13	0.28**	0.09
Relationship type (Cov)	0.16	0.15	0.46***	0.14	0.02	0.10
Prior EDS (Cov)	-0.53**	0.18	0.14	0.17	0.01	0.09
Attraction forces (M1)	-	-	-	-	0.12***	0.04
Constraining forces (M2)	-	-	-	-	-0.11**	0.04
(Model 7)	Attraction forces (M1)		Constraining forces (M2)		Recreation (Y)	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Constant	4.14***	0.48	2.35***	0.45	4.84***	0.37
Unrestricted sociosexual attitudes (X)	-0.06	0.05	-0.14**	0.04	-0.04	.03
Relationship agreement (W)	-0.43*	0.19	0.22	0.18	-	-
X x W	0.40***	0.10	-0.01	0.10	-	-
NCNM	-0.18***	0.05	-	-	-	-
CNM	0.23*	0.09	-	-	-	-
Gender (Cov)	0.31	0.16	0.49***	0.15	0.05	0.12
Education (Cov)	0.07	0.14	-0.16	0.13	0.14	0.10
Relationship type (Cov)	0.16	0.15	0.46***	0.14	-0.18	0.11
Prior EDS (Cov)	-0.53**	0.18	0.14	0.17	-0.05	0.10
Attraction forces (M1)	-	-	-	-	0.16***	0.04
Constraining forces (M2)	-	-	-	-	-0.14**	0.04

Note. Relationship agreement: 0 = Non-consensual non-monogamous (NCNM), 1 = Consensual non-

monogamous (CNM). Cov = co-variate. Gender: 0 = Women, 1 = Men. Education: 0 = ≤ 12 years, 1 = > 12

years. Relationship type: 0 = Without legal bond, 1 = With legal bond. Prior extradyadic sex (EDS): 0 = No, 1 =

Yes.

* $p \leq .050$, ** $p \leq .010$, *** $p \leq .001$.